UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,536	04/02/2001	Thomas M. Sirhall	SMQ-055	9786

959   7590   11/02/2004

LAHIVE & COCKFIELD, LLP.
28 STATE STREET
BOSTON, MA 02109

EXAMINER
BAYERL, RAYMOND J

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 July 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 - 20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1 - 20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892) •
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2.   Claims 1 – 2, 4, 7 – 9, 11 - 13, 15 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-el et al. ("Ziv-el"; US #2001/0034016 A1) in view of Tsumori et al. ("Tsumori"; US #6,435,880 B1).

As per independent claim 1's "method for testing a user online" (see also independent claim 8), please note the close correspondence to Ziv-el's <u>METHOD AND SYSTEM FOR ONLINE TEACHING USING WEB PAGES</u>, which provides <u>URL's of Web pages and **questions** related thereto</u> (Abstract; paragraphs 0082 – 0084). A <u>"Question" **applet**</u> is employed in correspondence to <u>the lesson data</u>, as in "receiving a request for a software tool". The Ziv-el <u>applet</u> "displays a question" and receives an "answer". Thus in Ziv-el is a functional questioning "tool" delivered to the client machine.

Ziv-el is principally concerned with the distance learning particulars relating to questions and answers *per se*, and does not enter into **explicit** detail about displaying "a list of possible answers to the question with associated icons" that the "user" may "select". However, such direct-manipulation interfaces were well-known in the art, as seen in Tsumori's <u>LEARNING-SUPPORT DEVICE</u>, where a <u>question-screen display part displays a question-screen composed of a question and moving images as choices for an answer</u> (Abstract). Note in particular that Tsumori's interface at fig 11 uses "icon" selection to answer a question.

Thus, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to use a downloaded <u>applet</u> tool as per Ziv-el, as enhanced by the graphical <u>screen</u> of Tsumori, in performing the test-administering function as presently claimed, for this would aid the student in accessing and providing the answers, as is a general goal of client GUI's when implemented by applets such as Ziv-el's.

In applicant's 2 July 2004 response to the initial presentation of this ground of rejection, the independent claims have been amended, as in exemplary claim 1, such that "the software tool processes the selection by the user...without requiring further communication with a server to verify the correct answer". This is not **explicitly** seen in Ziv-el, whose <u>applet</u> must conduct a session with a <u>Response Server 145</u>.

However, it remains that Tsumori's <u>table storage</u> as seen in figs 1, 3 (and col 8, line 29 – col 9, line 24) holds, at the single <u>learning-support device</u>, <u>columns for a question, a correct answer, first to third choice, an explanation for a correct answer, and an explanation for incorrect answer</u>.

It would therefore have been additionally obvious to the person having ordinary skill in the art to conduct Ziv-el's <u>applet</u>-mediated questioning session, with both question and answer downloaded as part of the "tool", when given Tsumori's teaching that the entire data set be maintained in a single location prior to operation. The motivation lies in cutting down network bandwidth and latency time, of the kind necessarily encountered in Ziv-el's explicit embodiment.

As per claim 2's "feedback" (see also claim 9), please note Ziv-el's response via mistake indicating comments (Abstract). As noted above, and with respect to claim 4, the "software tool" of Ziv-el is specifically an applet. The Java environment of Ziv-el (paragraph 0045) is clearly a teaching of "a virtual machine" (claim 7).

The Tsumori icon-selection display reasonably suggests the "check-icon list" of independent claim 11, and this combines, as noted above, with Ziv-el's "online educational course" that will "run an applet", but "without requiring" additional "communication with an external device". Tsumori's icons further suggest the "check-icon list" presented in independent claim 16.

Claim 12's "HTML", as noted at Ziv-el's paragraph 0082 (see also claim 18), is used in HTML pages containing Java applets. The "Question" applet communicates with the response server (paragraph 0084), as part of a presentation in which "the HTML code includes the question" (claims 13, 19). Thus Ziv-el also creates a "Java virtual machine" (claim 17).

It was eminently well-known in the art to invoke client systems on Student Computer(s) such as in Ziv-el's fig 10 via claim 15's "compact disc".

3.   Claims 3, 5 – 6, 10, 14, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-el in view of Tsumori and Futakuchi ("Futakuchi"; US #2001/0051330 A1).

As per the details as to the questioning procedure provided in these claims, the Ziv-el/Tsumori combination does not **explicitly** teach such embellishments as disabling "after a predetermined maximum number of attempts" (claims 3, 10) or accessing an

"input file for indicating a list of possible answers, and the correct answers" (claim 5). However, Futakuchi's APPARATUS AND METHOD FOR PROVIDING REMOTE TEACHING specifically uses a question database and an answer database, in a feedback arrangement in which tip level is incremented as per fig 4.

Thus, it would have been further obvious to the person having ordinary skill in the art to use the database and tip sequence of Futakuchi in the enhancement of Ziv-el's applet-based question page and Tsumori's iconic selection interface, for this will handle the situations of sourcing the data securely for the student interface and handling the eventuality of wrong answers, within limits. The tip level of Futakuchi must be finite, and will eventually fail to return responses; this sets the "maximum number of attempts".

The object-oriented Java structure of Ziv-el will place the applet separately in the downloaded tools from "a reference file distinct from the input file" as per Futakuchi (claim 6). Because of the applet-based question-tool found in Ziv-el, the developer encapsulates the content of "possible answers" in a way that is "separate from the HTML code to prevent the user from obtaining the correct answer by looking at the HTML code" (claims 14, 20).

4.   Applicant's arguments filed 2 July 2004 have been fully considered but they are not persuasive.

In arguing at page 8, paragraph 3 of the response that "Neither Ziv-el, nor Tsumori, individually or in combination, teach or suggest all of the claimed elements in the amended claims", applicant notes that "Ziv-el teaches the verification of the answers provided by the user being carried out on the server, not on the client", and that

"Tsumori fails to disclose the additional missing element of the verification of answers occurring on the client". However, as noted above, Tsumori's device includes a joint file structure in which both questions and answers are co-located. In the setting of Ziv-el's applets, this is a direct suggestion that the Ziv-el learning "tool" have the complete set of information at the original download, so as to avoid unneeded references to an answer server.

Regarding the overall combination of Ziv-el and Tsumori, applicant argues at page 9, paragraph 3 that "Ziv-el discusses a specific list of possible question structures in paragraph [0034], and fails to indicate that other alternatives might be required"; allegedly, "there is insufficient suggestion or motivation for one of ordinary skill in the art to look to Tsumori to find an alternative question and answer format". However, this motivation is indeed present, because of the more fluid, graphical format of iconic selection that Tsumori adds to the web-based Ziv-el interface. Tsumori, in this instance, is merely relied upon to show selection from a list of possible answers in the form of an icon array, and is directly applicable to an environment like Ziv-el's. A similar line of reasoning applies, in asserting the propriety of combination with the highly-analogous Futakuchi reference.

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

During an update search, the Examiner's attention was drawn to Hopp et al. (US #6,685,482 B2), in which a quiz module database is accessed in CREATING AND EVALUATING QUIZZES.

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Raymond J. Bayerl whose telephone number is (703)

305-9789 through the month of October 2004 and (571) 272-4045 thereafter. The

examiner can normally be reached on M - F from 10:00 AM to 5:00 PM ET.

8.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cabeca, can be reached on (703) 308-3116 through the month of

October 2004 and (571) 272-4048 thereafter. All patent application related

correspondence transmitted by FAX **must be directed** to the central FAX number (703)

872-9306.

9.   Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

3900.

RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173
25 October 2004